Nos. 04-277 & 04-281

IN THE
SUPREME COURT OF THE UNITED STATES

NATIONAL CABLE & TELECOMMUNICATIONS ASSOCIATION, *et al.*,
Petitioners,

-and-

FEDERAL COMMUNICATIONS COMMISSION and UNITED STATES OF AMERICA,
Petitioners,

v.

BRAND X INTERNET SERVICES, *et al.*,
Respondents.

ON WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE NINTH CIRCUIT

BRIEF *AMICI CURIAE* OF AARP, FREE PRESS and NATIONAL INTERNET ALLIANCE IN SUPPORT OF AFFIRMANCE

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BRIEF *AMICI CURIAE* OF AARP, FREE PRESS and NATIONAL INTERNET ALLIANCE IN SUPPORT OF AFFIRMANCE

INTEREST OF *AMICI CURIAE*[1]

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[1] No counsel for any party authored any portion of this brief. No persons other than the *amici curiae*, its members, or its counsel made a monetary contribution to

AARP is a non-profit, non-partisan membership organization with more than 35 million members representing the interests of Americans aged 50 or older. AARP helps people 50 and older have independence, choice and control in ways that are beneficial and affordable to them and society as a whole. Older Americans derive significant benefits from Internet access and usage. The Internet facilitates life-long learning opportunities and increased civic participation, particularly for those who have jobs, limited mobility, or family responsibilities that may make it difficult to participate in such activities otherwise. While the decision in this case will affect how all Americans access the Internet, Internet service provider ("ISP") competition is particularly important to AARP members because it will keep prices down and foster better customer service and applications targeted towards older Americans.

Free Press is a national, non-partisan organization working to increase informed public participation in crucial media policy debates, and to generate policies that will produce a more competitive and public interest-oriented media system with a strong non-profit and commercial sector. Therefore, preserving non-discriminatory access to the Internet is particularly important to Free Press's goals of ensuring public participation and access in the development of new media sectors.

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the preparation and submission of this brief. Amici has filed with the clerk a letter of consent from Petitioners, FCC and US. The remaining Petitioners and Respondents have filed with the Clerk notice of consent to the filing of amicus briefs.

The National Internet Alliance ("NIA") and its member organizations, the Federation of Internet Solution Providers ("FISPA"), the California ISP Association ("CISPA"), and the New Mexico Internet Provider Association ("NMIPA") support competition in all aspects of Internet services. These member organizations represent independent ISPs in over thirty states. The NIA believes that competition between Internet service providers breeds superior customer service and technological innovation to better serve all users. The decision in this case will determine the competitiveness of the market for ISP service over broadband and therefore directly implicates the NIA's goals of customer service and innovation.

SUMMARY OF ARGUMENT

This is a case about choice: whether ordinary Americans will have a choice in how they use the Internet, and the choice of the Federal Communications Commission ("FCC") in deciding whether to support or stymie those uses. In 2005, Americans use the Internet in myriad ways – communicating with long-lost friends and long-distance relatives, voicing their opinion on every topic from national politics (www.dailykos.com) to movies (www.imdb.com), and of course, shopping for every item imaginable (www.ebay.com). Technology is now available that allows people to talk to each other over the Internet, called voice over Internet protocol or VoIP. And we can expect future innovations that capitalize on the power of the Internet as a communications tool.

By miscategorizing cable broadband as entirely an information service and not recognizing its underlying telecommunications service, the FCC threatens the vibrant and competitive Internet service provider industry, which

makes it possible for Americans to do all of these things, and to look forward to even better uses of the network in the future. If the FCC's ruling stands, Americans will lose the critical choice of what ISP to use to connect them to the Internet. Because ISPs can control the applications and software customers use to access the Internet, absence of choice in ISPs will, in turn, limit what we can do once online.

The 1934 Communications Act established the Federal Communications Commission ("FCC") because Congress recognized that the providers of phone and radio service could control the way Americans communicate with one another and transact commerce across the nation. Against a historical backdrop of non-discriminatory access to the channels of communication and commerce, Congress charged the FCC with a statutory duty to promote public policy interests when promulgating communications regulation. The problem is that the FCC has conflated the transmission services that connect consumers to the Internet with the Internet access services that are provided over that transmission. Companies that own the technology over which data travels are "pipeline providers." They provide the highway on which Internet information travels. "Internet Service Providers" or "ISPs" are companies that provide users with the Internet applications that allow customers to use the Internet such as with browsing software and email programs. These are distinct services. But companies such as Comcast, who own the cable lines, can also require customers to use their Internet Service Providers as well. Forcing consumers to buy service from cable-affiliated ISPs restricts choice for consumers and creates a substantial competitive barrier for unaffiliated ISPs.

In the case of regulating cable broadband – a modern descendant of the railroads, phone lines, and radio service –

preserving the consumer's choice of Internet service provider promotes competition in the medium. The expansion of choice and competition drives down prices, provides for better service, encourages rapid innovation, and fosters more vibrant online communities. Currently, there is less and less competition among ISPs over the cable broadband medium.

Properly categorizing cable broadband as a telecommunications service gives the FCC a presumption of regulation that requires full consideration of these important public interests and the ability to regulate when necessary to reverse these troubling trends, as Congress intended.

ARGUMENT

Congress mandated the FCC to regulate communications industries in the best interest of consumers. *See* 47 U.S.C. § 151 (2000); 47 U.S.C. § 257(b) (2000). Without some intervention to promote competition, current and potential consumers of cable broadband will suffer from higher prices, poorer service, and less or no access to new, innovative uses of the Internet. These are dangerous harms that the cable industry's market power over the broadband pipeline engenders.

I. CONGRESS REQUIRES THE FCC TO CONSIDER THE INTERESTS OF CONSUMERS AND THE BENEFITS THEY DERIVE FROM NON-DISCRIMINATORY ACCESS WHEN PROMULGATING COMMUNICATIONS REGULATION.

The FCC has a statutory duty to promote consumer interests in regulating national communication. Congress commissioned the FCC to protect consumers of

communications industry services. In 1934, it created the FCC to regulate "interstate and foreign commerce by wire and radio so as to make available . . . to all the people of the United States, without discrimination . . . a rapid, efficient, Nation-wide, and world-wide wire and radio communication service with adequate facilities at reasonable charges." 47 U.S.C. § 151 (2000). The 1996 Telecommunications Act reaffirmed this commitment, requiring the FCC "to promote the policies and purposes of this Act favoring . . . vigorous economic competition, technological advancement, and promotion of the public interest, convenience, and necessity." 47 U.S.C. § 257(b) (2000). Even in considering when to relax regulation of telecommunications services, the paramount consideration is to be the public interest. *See* 47 U.S.C. § 160 (2000). Thus, Congress explicitly requires the FCC to consider and promote the important interests of consumers – managing prices, increasing access, and promoting innovation.

The public interest standard of the 1996 Act imposes a substantial duty on the FCC to develop a factual record on issues of public or consumer interest and regulate based on rules and criteria. Congress requires the development of extensive findings in order to forbear from regulating. 47 U.S.C. § 160(d) (2000). The Commission must determine that regulation is not necessary to ensure that the charges and practices of the industry are reasonable and not discriminatory, that regulation is not necessary to protect consumer interests, and that forbearing from regulation is consistent with the public interest. *Id.* Only this forbearance process gives the interests of individual consumers their just due. Thus, the FCC only gives proper consideration to the individual consumer by properly classifying broadband pipeline access as a telecommunications service. By

misclassifying cable modem service, the FCC has failed to conduct this important public interest analysis.

II. CONSUMERS REAP SIGNIFICANT BENEFITS WHEN GIVEN A DIVERSITY OF ISP CHOICES, AND CABLE BROADBAND'S INCREASING CONTROL OVER ISP CHOICE THREATENS THESE BENEFITS.

Because ISPs serve as a gateway or entrance to the Internet for their consumers, they serve a particularly important function. Certainly, preserving ISP choice over the cable broadband medium fosters competitive pricing and better, more tailored customer service. But it also protects the conditions for rapid technological innovation by preventing dominant pipeline access providers from discriminating against new and better uses for the network.

As this Court recognized as early as 1997, the Internet "allows tens of millions of people to communicate with one another and to access vast amounts of information from around the world. [It] is a unique and wholly new medium of worldwide human communication." *Reno v. A.C.L.U.*, 521 U.S. 844, 850 (1997) (citations omitted). "It is . . . both a vast library including millions of readily available and indexed publications and a sprawling mall offering goods and services." *Id.* at 853. Consumers can use the Internet's "general purpose" technology in an almost infinite number of ways. Lee W. McKnight, *Internet Business Models: Creative Destruction as Usual*, in *Creative Destruction: Business Survival Strategies in the Global Internet Economy* (Lee W. McKnight et al. eds., 2001), at 39, 45. The ISP opens this world up to its users by providing a gateway to the Internet over which Internet information flows. The ISP can provide the array of computer programs that people use to go online,

to send messages to each other, to view the webpages that they want to see or create webpages themselves, to watch videos or listen to music, and to buy goods and services over the Internet.

Cable companies can control ISP choice because they provide broadband pipelines to subscribers. Often, these companies are a consumer's only choice of a pipeline to access the Internet. The cable company can then force the consumer to pay for its affiliated Internet service (ISP) option. Because the current FCC ruling fails to recognize the common carrier obligations of cable broadband providers to carry multiple ISPs, the pipeline providers can decide which ISPs they will carry over their lines and under what conditions. In this way, their position is like a highway that can decide to allow Fed-Ex trucks on its roads but not allow UPS trucks, or to require a customer to pay for Fed-Ex even if the customer prefers UPS.

A. ISPs Perform the Absolutely Critical Role of Bringing Information to Internet Users in Usable Form.

Internet service providers are critically important to the way users experience the Internet. The ISP is a consumer's door into the Internet. For example, when a person subscribes to an Internet service, the company might send the user an easy installation kit designed to make the connection process work seamlessly. If a customer has problems installing the service, he could call or email an individual customer service representative, or chat online with someone who can walk him through the installation process. Once online, an ISP might feature numerous "tutorials" for new users, including instructions on such topics as transferring files over the Internet and designing

one's own personal webpage. The service could include computer programs to limit spam (unwanted mass e-mailings) and pop-ups (annoying advertisements that often open automatically when you go to particular websites, thereby forcing the user to look at them because they obscure the actual content the user wants to see). Most independent ISPs now provide live, local technical support, which may include anything from helping customers connect to the Internet to helping them get rid of viruses to even assisting in problems with unaffiliated computer programs. In addition, many non-affiliated ISPs provide classes and training, particular for older consumers and other new entrants to the Internet. Local ISPs often also provide on-site support and training to customers requiring assistance, but who may be housebound or disabled. Thus, the ISP can make the world of the Internet accessible to the ordinary user, helping the user take advantage of the tremendous opportunities for communication and expression that the Internet affords.

Users unfamiliar with Internet technology derive a particular benefit from ISP choice because they rely more heavily on the ISP to "translate," explain, or demystify the capabilities of the Internet than technically savvy users. Thus, for older Americans, who did not grow up with the personal computer and the Internet as a part of their daily lives, the ISP serves a particularly important role when they first begin to access information online.

B. Market Dominant Cable Broadband Access Services Permitted to Close Out ISPs and Internet Traffic Threaten to Reverse the Trends of Lower Costs, Better and More Tailored Customer Service, and Rapid Innovation That Have Characterized the Internet Thus Far.

A vibrant ISP market breeds lower cost, promotes better and more personal service and spurs technological innovation. As the ISP market shrinks, these benefits rapidly evaporate.

1. Cable pipeline providers have great power to limit customer choice in Internet service providers and applications.

As broadband becomes more and more dominant, cable owners increasingly control the lines of communication upon which customers depend. They possess tremendous power to limit ISP choice. Historically, the federal courts have recognized the inherent power of those who control lines of communication. *See, e.g., United States v. Western Electric*, 673 F. Supp. 525, 566 (D.D.C. 1987) (noting that "[a]mong [a phone company's] more obvious means of anti-competition action . . . are . . . manipulation of the quality of access lines, impairment of the speed, quality, and efficiency of dedicated private lines used by competitors, development of new information services to take advantage of planned but not yet publicly known, changes in the underlying network, [and other behaviors]."). [2] Because of these inherent dangers, phone companies were required to sell transmissions to all ISPs, but the FCC has inexplicably abdicated that same line of reasoning when it comes to cable broadband.

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[2] The principal holding of this case was superseded by statute. *Stewart v. Nynex Corp.*, 78 F. Supp. 2d 172 (S.D.N.Y. 1999).

The FCC ruling allows companies to refuse to carry any ISP but their own, denying customers the right to choose or forcing consumers to pay for two ISPs to get the one they want. Most companies that provide access to the Internet over cable broadband are in two conceptually and physically separable businesses: they provide access to their pipeline to paying subscribers, and they operate ISPs over those lines. Conceptually, cable companies use their physical control over the lines to dominate the ISP market. FCC prior rulings "drew a distinction between bottleneck common carrier facilities and services for the transmission or movement of information on the one hand and, on the other, the use of computer processing applications to act on the content, code, protocol, or other aspects of the subscriber's information. The latter are "enhanced" or "information services." *High-Speed Access to the Internet over Cable and Other Facilities*, 17 F.C.C.R. 4798, 4820 n.139 (2002) (declaratory ruling). By drawing a distinction between the "services for transmission" and the "computer processing applications," the FCC implicitly recognized the fundamental difference between cable broadband companies' telecommunications businesses (providing services for transmission of information) and its information service business (providing computer processing applications through its own or any affiliated ISPs). Without non-discriminatory access between service providers, cable providers not only control the means of delivering Internet content (the wire or cable), they also control the means of experiencing Internet content (the applications and user interfaces of the ISP) and the content itself.

Also, cable companies can direct users towards their own ISP service by making use of a non-affiliated ISP more expensive. For example, to use the America Online ("AOL") ISP over Comcast's broadband pipeline, a user would have to

pay both the 35 to 40 dollar monthly Comcast fee (which includes its own ISP service) and a fifteen-dollar monthly AOL fee just for the alternate Internet service. *See What Dial-Up and Broadband Plans Does AOL Offer?*, http://www.aol.com/support/index.adp?toc=billing&page=02 (last visited Feb. 10, 2005). Choosing a non-affiliated provider, in this example, increases costs by 38%.

Cable companies can also select which services users are allowed to use on the Internet. For example, a cable trade newspaper discussing pipeline technology notes that, "overload or misbehavior within the HFC [high frequency cable] network by any given provider must be contained within the network resources committed to that service provider – and not be allowed to impact other providers sharing the network." RiverDelta Networks, *QoS: One HFC Network, Multiple Revenue Streams*, in *Cable Datacom News*, *at* http://www.cabledatacomnews.com/whitepapers/paper08.html (last visited Feb. 5, 2005). While a cable pipeline provider might use that technology to prevent "overload or misbehavior," it can also use it to impair a service that uses a lot of data (for example, watching movies or downloading music over the Internet). For example, in 1999, ATT's then head of cable operations. Daniel Somers, expressed reluctance to allow other service providers to freely transmit movies via ATT's cable broadband services. David Lieberman, *Media Giants' Net Change: Major Companies Establish Strong Foothold Online*, USA Today, Dec. 14, 1999, at 3B. Cable companies can exclude certain services if the company does not want them delivered for any reason.

In the current market, most consumers have few choices in pipeline providers, which in turn limits their choice of ISP. Over 36% of zip codes have fewer than three

high-speed pipeline providers. Press Release, Federal Communications Commission, *Federal Communications Commission Releases Data on High-Speed Services for Internet Access* 18 (Dec. 22, 2004), *available at* http://www.fcc.gov/Bureaus/Common_Carrier/Reports/FCC-State_Link/IAD/hspd0603.pdf. Most cable companies require customers to pay for their affiliated ISP. Over the dial-up Internet, there were roughly fifteen ISPs per 100,000 customers. Consumer Federation of America, *Public Interest in Open Communication Networks* 67. On the high-speed Internet, there are now fewer than two ISPs per 100,000 customers. *Id.* Over cable broadband, there is less than one ISP per 100,000 customers. *Id.* Over the last six years, more than half of American ISPs have been either forced to close their doors or file for bankruptcy. Consumer Federation of America, *Public Interest in Open Communication Networks* 55; *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996*, Reply Comments of Teletruth and the New Networks Institute 20 (2004), http://www.teletruth.org/docs/706Dataqualityactreplycomments.pdf.

2. While consumers enjoyed fierce price competition among Internet service providers before broadband, price competition over the broadband channel has been practically non-existent.

Consumers view price as a key factor in ISP choice. For example, between the late 1980s and late 1990s, the number of ISPs nationally increased from less than 1,000 to

approximately 7500. Consumer Federation of America, *Public Interest in Open Communication Networks* 55. As ISP competition spread, a wide range of pricing options developed, ranging from five to ten dollars for very basic service to twenty-five dollars per month for a full range of services.

Today, cable companies control approximately 62% of the residential high-speed Internet market. Federal Communications Commission, *High-Speed Services for Internet Access: Status as of June 30, 2004*, at Table 3. Cable companies also control 83% of advanced services lines. *Id.* at Table 4. Broadband use surpassed dial-up access in late 2004. Bob Tedeschi, *Shopping Sites Offer New Features for High-Speed Users and Get Surprisingly Few Complaints From Dial-Up Users*, N.Y. Times, Nov. 29, 2004, at C6. By the FCC's own account, the cable broadband market is highly concentrated.[3] Moreover, the entire cable broadband market has been dominated primarily by a handful of companies: Comcast, TimeWarner, and Cox Communications. Together these three companies comprise

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[3] In a 2003 Memorandum Opinion and Order, the FCC noted that the Herfindahl-Hirschman Index, a measure of market concentration, for the residential and small business market is between 5500 and 5800. *Provision of Fixed and Mobile Broadband Access, Educational and Other Advanced Services in the 2150-2162 and 2500-2690 MHz Bands et al.*, 18 F.C.C.R. 6722, 6775 (memorandum opinion and order) (2003). On previous occasions, the US DOJ has noted that a market with a Herfindahl-Hirschman Index of 1800, a mere fraction of 5500, is considered highly concentrated. *Application of Echostar Communications Corporation et al.*, 17 F.C.C.R. 20559, 20614 (hearing designation order) (2002).

66% of cable broadband sales. *See* Press Release, Leichtmann Research Group, *A Record 2.3 Million Add Broadband in First Quarter of 2004* (May 11, 2004), http://www.leichtmanresearch.com/press/051104release.html. The top six cable broadband pipeline providers control 89% of the market. *Id.*

Feeble competition in the high-speed Internet access market has allowed cable companies to keep prices up. Unlike over the narrowband channel, where prices fell and choice proliferated rapidly, cable companies have maintained uniformly high prices. For example, cross national comparisons of price show that Americans pay between ten and twenty times as much, on a megabit basis, as consumers in Korea and Japan pay. Three years ago, the price gap was half as large. Mark Cooper, *Expanding the Digital Divide & Falling Behind on Broadband: Why a Telecommunications Policy of Neglect is Not Benign* 1 (2004), *available at* http://www.consumersunion.org/pub/ddnewbook.pdf [hereinafter *Expanding the Digital Divide*].

Lack of competition and persistent high prices have exacerbated stratification among households with respect to their ability to access the Internet. For example, while half of households with income above 75,000 dollars have a high-speed Internet connection, half of those with income below 30,000 have no Internet connection at all. *Id.* Internet penetration in households (that is, the number of households who have Internet access at homes) plateaued over the last two to three years. *See* Cooper, *Expanding the Digital Divide* 15.

Those who are priced entirely out of the market do not benefit as much from the educational and civic engagement activities the Internet affords. Mark Cooper,

Inequality in Digital Society: Why the Digital Divide Deserves All the Attention it Gets, 20 Cardozo Arts & Entertainment L.J. 73, 73-74 (2002). Former Secretary of State Colin Powell put it succinctly: "What is at stake is today's digital "have-nots" – especially the young – and whether they may find themselves marginalized for life because they lack the skills and tools to participate in a globalized, knowledge-based economy." Colin Powell, *Is the Digital Divide a Problem or an Opportunity*, Business Week, Special Advertising Section (2000), *available at* http://www.businessweek.com/adsections/digital/powell.htm [4]. People who live on fixed incomes, such as retired individuals who no longer actively earn salaries, are at a special risk of being excluded from these critical educational and civic opportunities. While the Internet's early history encouraged non-discriminatory access for all, its recent history has suggested that commitment to access is receding as prices rise beyond the means of ordinary Americans.

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[4] The FCC has suggested that by giving broadband companies (whether DSL or cable) control on broadband Internet service now will facilitate the rapid deployment of the technology. *See Health of the Telecommunications Sector: A Perspective from the Commissioners of the Federal Communications Commission: Hearings before of the House Subcomm. On Telecommunications and the Internet of the House Comm. on Energy and Commerce Committee*, 108th Cong. 25 (2003). It is not clear why cable companies would slow the deployment of broadband as long as they could still make money selling access to the pipeline, even if they had to abide by open access and non-discrimination guidelines with respect to the parties to whom they sold that access.

3. Lack of ISP competition threatens quality customer service and consumer choice of Internet applications and content.

Second, more competition forces ISPs to serve their customers more effectively. In the narrowband world, there were very few "plain vanilla" ISPs with basic services and no particular distinguishing factor, whether it be outstanding customer service or serving a particular geographical community. Some ISPs focused on providing services specific to small businesses such as setting up networking (allowing computers within a business to connect and share data over a private network) or web-design (helping companies build their own web pages). *See* Shane Greenstein, *Building and Delivering the Virtual World: Commercializing Services for Internet Access* 15, 21 (2000), *available at* http://groups.haas.berkeley.edu/imio/crtp/publications/workingpapers/wp54.PDF. Such ISPs also often offered small businesses their own email address (for example, name@mycompany.com rather than name@cablecompany.com). Others focused on making their technology as easy to use as possible, cultivating customers who were unfamiliar with computers and the Internet. *Id.* Because competitive ISPs tailored their services closely to their core customers, open competition also allowed users to unite through ISPs. ISPs that focused on niche communities with specific hobbies or passions proliferated. Users with particular faiths (World Christian Webhosting), in specific geographical communities (Central Valley Online)(www.rainbowvoice.net) or with individualistic pop culture interests (StarTrek Mail) all found communities online through ISPs marketed specifically to them.
ISPs affiliated with cable companies often provide fewer customer service options and fewer Internet services (such as

browsing, email, making phone calls over the Internet, or video capabilities) than those that have more success in the narrowband market. In fact, cable-affiliated ISPs do not compete in the narrowband channel. Because new users know less about Internet technology than early adopters, they may not even realize that their choices have been intentionally limited.

Even the non-affiliated ISPs a cable company deigns to carry may not be able to provide competitive customer service through a cable company's policies. First, cable companies can use caching to speed access to their own ISP's content (such as websites) as opposed to content provided by unaffiliated ISPs. Jerry Hausman et al., *Residential Demand for Broadband Telecommunications and Consumer Access to Unaffiliated Internet Content Providers*, 18 Yale J. Reg. 129, 158 (2001). "Caching" refers to storing data in a location closer to the end user, so that when that information is requested, it is delivered to the consumer more quickly. If a customer knows that by using his cable company's affiliated ISP, he will be able to surf the web more quickly, getting the information he needs, participating in political discussions, or simply buying plane tickets online, he will be more likely to choose the company's affiliated ISP. But, in a world where the cable company does not cache its own content, he might prefer a different ISP which provides him with equal speed but enhanced customer service. The caching policy, then, potentially decreases the overall utility that an individual consumer derives from the Internet.

Second, cable companies can use "policy based routing" to discriminate between different types of content and thereby artificially decrease the desirability of certain ISPs. This technology – which prioritizes which data to send first over the cable wire – serves some important purposes

(for example, prioritizing voice data, which is more time-sensitive, over email data). It also provides ample temptation for abuse. As Lawrence Lessig notes, "the unintended consequenc[e] of these additional features [is] the ability of the network to then sell the feature that it will discriminate in favor of (and hence also against) certain kinds of content." Lawrence Lessig, *The Future of Ideas: The Fate of the Commons in a Connected World* 46-47 (2001). Policy based routing allows network owner's ability to slow down a competitor's offerings while speeding up his own: "like a television set with built-in static for ABC but a clear channel for CBS." *Id.* at 47. Policy based routing can identify network traffic by the type of application, even down to specific brands, by interface used (that is, whether a user is using Internet Explorer to browse the web or Apple Safari), by user type and individual user identification, and by site address (the unique locator for the website a consumer seeks to view). Cisco Systems, *Controlling Your Network: A Must for Cable Operators* 3 (1999), *available at* http://www.cptech.org/ecom/openaccess/cisco1.html.

Third, the pipeline provider can block out rival ISPs content entirely. *See id.* Its affiliated ISP may provide only a fraction of the services of other ISPs. Mark Lemley & Lawrence Lessig, *The End of End-to-End: Preserving the Architecture of the Internet in the Broadband Era*, 48 UCLA L. Rev. 925, 942-43 (2001) [hereinafter *End of End-to-End*]. For example, it may fail to provide the tutorials, step-by-step instructions, or in-home visits that are so helpful for new users of the Internet. Even if the Internet access provider only slows the transmission of non-affiliated content delivered by the ISP, customers may not attribute this slowness to deliberate choice on the part of the access provider. "If a travel site comes up slowly because it is not a favored site, the user is likely to consider this congestion, not

something owing to the network." Lessig, *Future of Ideas* 160. Thus, while price increases are outwardly evident, limitations on choice decrease the utility consumers receive from the Internet in both obvious and more subtle ways.

4. A competitive market for ISPs spurs innovation and the rapid evolution of technology over the Internet, but as cable pipeline providers have increasingly dominated broadband, the rate of innovation has slowed.

A competitive ISP market promotes rapid technological innovation. First, lower prices open up the Internet to more users. A larger number of users spawns demand for a greater variety of specialized services. For example, without a substantial number of lawyers using the Internet in their workplaces, there would be less reason to develop the Lexis-Nexis and Westlaw services, which both offer substantial amounts of information in a remarkably easy-to-search form. More users spurs the development of these tailored computer programs or services and their dissemination to the community of users as a whole. *Cf.* Consumer Federation of America, *Public Interest in Open Communications Networks* 60 (noting symbiotic relationship between market for personal computers and their applications and market for ISP service and applications).

The open nature of the early Internet created a competitive environment for innovators. If a small inventor with a great idea for better email wanted to go into business, he could make his service available, and users could select the ISP that enabled them to take advantage of this better mousetrap. The narrowband wire, as opposed to the cable wire, did not discriminate between ISPs nor between

different types of email traffic. If the innovation was good, it spread unimpeded. If it was terrible, it was buried through disuse. ISP innovators knew that their inventions would be used if useful because customers had the choice of accessing them, unimpeded by pipeline providers. Historically, smaller ISPs authored preliminary versions of many now-common applications. For example, instant messaging or real-time chat programs (which allow users to type messages back and forth to each other instantly) and web-based email (which allows users to check their email anywhere they have access to the Internet, not just at their own desks) were both developed by independent ISPs.

With the rise of broadband, the rapid rate of innovation has slowed. In the late 1990s, programs that allowed us to check email and look at web pages through web browsers revolutionized the way ordinary people received and sent information, provided new learning opportunities, and allowed people to join together through email lists or websites that united people of a common interest (www.yogasource.com), political background (www.rnc.org), or religious belief (www.livermoretemple.org). People colloquially referred to these new email and browser programs as "killer applications" or "killer apps." With the advent of broadband, the latest killer application might be Voice over Internet Protocol (VoIP) technology. This technology allows people to make phone calls over the Internet. While this technology was developed by small, independent innovators, its deployment and continued improvement is threatened if cable companies support or promote their proprietary VoIP technology while excluding or disfavoring independent providers.

III. THERE ARE CURRENTLY NO ADEQUATE ALTERNATIVE CHANNELS FOR ISP COMPETITION.

Cable companies currently dominate the residential high-speed pipeline market. Other high-speed access channels such as DSL or wireless broadband may never provide sufficient competition for cable. *See* Columbia Telecommunications Corporation, *Technological Analysis of Open Access and Cable Television Systems* (2005 supplement), *available at* < website> [hereinafter *Technological Analysis of Open Access*]. By being an early arriver to broadband access provision, the cable industry has an advantage in locking in consumers. Carl Shapiro & Hal Varian, *Information Rules: A Strategic Guide to the Network Economy* 135-71 (1999) (discussing first-mover advantage and how companies can take advantage of being first in a given field to lock in consumers). For example, consumers incur equipment costs and have to give up their email addresses if they switch providers. And, once customers have signed on to a given provider, their natural tendency to switch is extremely low unless the alternative is either markedly cheaper or markedly better in some way.

Even if customers are ready to switch from cable, there may be no viable alternatives to select. Narrowband access to the Internet is too slow to provide sufficient competition. It simply is no longer a comparable pipeline. Most people switch to broadband for its faster speed. John Horrigan, *Pew Internet Project Data Memo* 4 (2004), http://www.pewInternet.org/pdfs/PIP_Broadband04.DataMemo.pdf. Further, the Justice Department has also recognized that offerings explicitly tailored for broadband often do not work very well over narrowband connections. *United States v. AT&T Corp. & MediaOne Group, Inc.*, Amended

Complaint 8, Case No.: 1: 00CV01176 (RCL) (D.C. Cir. May 26, 2000), *available at* www.usdoj.gov/atr/cases/f4800/4840.pdf. Thus, a narrowband user can do fewer things on the Internet (for example, it may be difficult to participate in an online chat over a narrowband wire) than a broadband user, and the things that a narrowband user can do take much more time for the narrowband user than the broadband user. In short, the narrowband technology is prohibitively inferior.

Digital subscriber line ("DSL") is cable's closest competitor but nevertheless fails to provide a true alternative to cable. About 42% of residential high-speed connections are serviced by DSL lines, but DSL's continued growth is likely limited.

DSL uses special equipment to carry data over telephone lines at higher speeds than conventional modems (which transmit data over the narrowband Internet). Most DSL subscribers do not receive the data speed that cable subscribers receive. Columbia Telecommunications Corporation, *Technological Analysis of Open Access* 7. Thus, DSL is more limited than cable in the high bandwidth services it can provide. *Id.* Most importantly, DSL's fatal weakness is its sensitivity to line conditions: there can be no more than 3.4 miles of copper wire between the phone company's central office and the subscriber, making DSL impractical in most rural areas. Columbia Telecommunications Corporation, *Technological Analysis of Open Access* 9. DSL may never be available in all markets and currently does not reach all the markets that cable reaches. *Id.* at 8-9.

There are no other alternatives available in any significant way. Most high-speed pipeline markets are at

most duopolies, where consumers have a choice of only one or two high-speed pipeline providers (cable vs. DSL). Catherine Yang, *Behind in Broadband: New Policies Are Needed to Help the U.S. Catch Up*, Business Week, Sept. 6, 2004, at 88.

For example, wireless broadband technology has not been widely adopted. Wireless broadband users make up less than 3% of the high-speed Internet services market. *See* Horrigan, *Pew Internet Project Data Memo* 2. Outside of a few metropolitan areas, it may take many years for wireless to provide comparable capacity and coverage to cable. Columbia Telecommunications Corporation, *Technological Analysis of Open Access* 20. Installation challenges, line of sight restrictions, and other technical limitations all continue to hinder the deployment of wireless broadband. *See* Enrico C. Soriano et al., *A Look at Key Issues Currently Shaping Broadband Deployment and Regulation*, 7 Computer & Internet Lawyer 1, 4 (2004). Some of these problems are likely insurmountable. For example, in order for wireless service to work, there must be a relatively open line between the transmitter and the user's computer. This may never be possible in densely populated areas.

In sum, there is no reasonable anticipation of change to the current market. No significant new players have entered the high-speed ISP market in the last few years, either over cable broadband or these other alternatives. Neither DSL nor wireless broadband can provide a forum for significant ISP competition. Intermodal competition – competition between cable broadband and other types of pipeline providers such as DSL – is not enough. By contrast, intramodal competition – ISP competition within the cable broadband medium – would ensure vibrant competition.

IV. THESE CUSTOMER CONCERNS SHOW WHY IT IS SO CRITICALLY IMPORTANT THAT THE FCC PROPERLY CLASSIFY CABLE BROADBAND AS A TELECOMMUNICATIONS SERVICE, AND REGULATE IT IN THE PUBLIC INTEREST, AS CONGRESS INTENDED IT DO.

Classifying cable broadband as a telecommunications service would force the FCC to consider appropriate regulation now. Any appropriate regulation now could prevent much more regulation later, when the dominance of a few cable broadband providers is firmly entrenched. Then, it will be much more difficult to maintain competition among ISPs or resurrect ISPs that have collapsed out of starvation for customers free to select their services. An example of appropriate FCC action is its ruling with regard to the AOL/TimeWarner merger. There, the FCC recognized the potential danger to the public interest from tying ISP services to pipeline access. Following the Federal Trade Commission's lead, the FCC required AOL/TimeWarner to carry three non-affiliated ISPs when it offered its own service and prohibited AOL/TimeWarner from discrimination in its transmission of content for non-affiliated content. *AOL/TimeWarner Merger*, 16 F.C.C.R. 6547, 6593-6596 (2001) (memorandum opinion and order). The FCC instituted these prophylactic measures in order to assure choice later on. The FCC properly saw that stopping anticompetitive behavior (such as carrying only one ISP) early would better protect the interests of consumers in the future.

Characterizing cable modem service as a telecommunications service now gives the FCC the flexibility to achieve an ideal amount of regulation (even if

that ideal amount ends up being no regulation) as the industry develops. *See* 47 U.S.C. § 201-276 (2000). The broadband industry is young, and only a clairvoyant FCC could know how it will evolve over the next three to five years. Requiring the forbearance proceeding forces the FCC to monitor the rapid development of the market, whether that tends toward the further consolidation of the ISP market or a rapid proliferation of new choices. In either case, the forbearance process gives the FCC the tools it needs to obtain the necessary facts and properly manage the industry considering the interests of consumers.

Similarly, merely providing all ISPs "click through" access does not provide sufficient competition. "Click through" access means that ISPs cannot directly sell their services over the cable broadband pipeline, but users may be able to access them once they are online. Click-through access suffers from all of the problems discussed above. Free services, such as Yahoo! mail or hotmail are susceptible to both caching and policy-based routing problems. In addition, customers who choose paid services, for example AOL's ISP must pay for both that service and the cable-affiliated ISP as well. In addition, many providers may only be able to provide a fraction of their services through a click through arrangement. Lemley & Lessig, *End of End-to-End*, 48 UCLA L. Rev. at 942-43.

Misclassifying cable broadband avoids thorough consideration of the state of the industry and the impact of cable broadband's rise on consumers. It fails to accord proper weight to the interests of individual Americans who use the Internet in a growing and astonishing multitude of ways. The interests of these individuals, the way they have been served by the FCC's historical examination of Internet access, and the way that their choice has been limited by the

FCC's failure to examine it now all show how vital it is for the FCC to classify cable broadband correctly.

By according the cable broadband industry with a presumption of regulation that goes with classifying it as a telecommunications service, the FCC would honor both historic legal norms and modern statutory duty requiring it to consider the public interest when regulating channels of communication and commerce. It would preserve choice, innovation, and competitive pricing in one of America's newly dominant media channels. In so doing, it would reverse trends to the contrary. More importantly, it would ensure that the opportunities for life-long learning, information-gathering, and civic participation that the Internet affords flourish in the coming years.

CONCLUSION

For the foregoing reasons, *Amici* urge the Court to affirm the Ninth Circuit's decision below.

February 18, 2005

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* Counsel gratefully acknowledges the contribution of Aparna Sridhar, a Stanford Law student, in preparation of this brief.